UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 8, MONTANA OFFICE
FEDERAL BUILDING, 301 S. PARK, DRAWER 10096
HELENA, MONTANA 59626-0096

Ref: 8MO

INSPECTION REPORT

FACILITY: ASARCO East Helena Plant
P.O. Box 1230, E. Helena, MT 59635
EPA ID # MTD 006 230 346
Telephone (406) 227-7191

RESPONSIBLE OFFICIAL: Jon Nickel, Environmental Supervisor

INSPECTION PARTICIPANTS: Bill Potts and Adel Johnson, DEQ; and Susan Zazzali, EPA

DATE OF INSPECTION: November 4 & 5, 1998

PURPOSE OF INSPECTION: To evaluate ASARCO's compliance with RCRA requirements. The inspection focused on secondary material management and on-site waste generation activities.

FACILITY DESCRIPTION: ASARCO is a primary lead smelter occupying approximately 80 acres in East Helena, Montana. The smelter has been in operation since the late 1800s. The smelter produces primary lead bullion and copper matte and speiss which are further refined at other ASARCO facilities. Source materials for the smelter include virgin ores (60-70% from South America) as well as non-virgin (secondary) metal-bearing materials. The facility also operates an acid plant which produces 93% food grade sulfuric acid.

RESULTS OF INSPECTION: The inspection team arrived at the ASARCO facility at approximately 8:30 AM and met with Jon Nickel to discuss the purpose of our visit. Ms. Zazzali presented her credentials to Mr. Nickel.

This inspection report addresses management of off-site secondary materials, and management of the plant water circuit sludges. However, not all documents, practices, etc. related to secondary materials acceptance and management were reviewed.

The inspection team explained that they wanted to review Asarco's materials acceptance procedures and on-site waste generation activities. Mr. Nickel explained that he maintained a list of all secondary materials approved for processing through the Acceptance Criteria process (Attachment 1) and he had a file of all the Material Acceptance Profiles (MAPs). Ms. Zazzali asked to see the list of acceptable secondary materials and the inventory of materials currently on-site material.(Attachment 2).

From the list of acceptable materials, Ms. Zazzali and Ms. Johnson selected the following MAPs for review:

	Company	Material
1.	Ramkee Industry	Jewelry Gypsum
2.	Safety-Kleen	Gold/Silver Sweeps
3.	Asarco-Tacoma Plant	Godfrey Calcines
4.	Encycle	Lead sulfide (Glover Matte)
5.	Big River Zinc	Zinc Leach residue
6.	Academy Corp.	Refractory
7.	Asarco-Tacoma Plant	Godfrey/WTESR
8.	Eastman Kodak	Harrow Flotweg Mud
9.	Martin Metals	Calcine Cubes
10.	Martin Metals	Electronic Ceramics
11.	Commodity Resource & Env.	Gold/Silver sweeps
12.	ECS Refining	Photochemical Ag precip.

Material Acceptance Profiles #2,3,4,7,9,10,11,12 from the above list are in Attachment #3.

A number of discrepancies or inconsistent statements were noted in some of the MAPs. A number of the inconsistencies resulted from differences in the original MAP and addendum filled out by the generator and Asarco's cover memo approving the The Safety-Kleen MAP states that the gold/silver sweeps exhibit the toxicity characteristic. Asarco's analytical data and summary memo indicate the material does not exhibit a characteristic. The memo should discuss this inconsistency.

The Asarco Tacoma MAPs are for Godfrey Calcines and waste water treatment sludges sent from Asarco's Tacoma plant to East Helena for recycling. The Tacoma plant is shut down and undergoing remediation under the Superfund program. Ms. Zazzali explained if these materials could be considered remediation wastes, Asarco East Helena would need to obtain permission from Region 8 to accept the materials pursuant to the Off-Site Rule. Ms. Zazzali suggested Mr. Nickel call Terry Brown of Region 8 to discuss the Off-Site Rule.

Another issue regarding the Tacoma materials is whether they are being legitimately recycled. The materials are 9.1% arsenic and 7.1% lead. Ms. Zazzali indicated to Mr. Nickel that the agency was still concerned Asarco had not provided a quantitative analysis of how the arsenic is recycled.

The Encycle MAP was for Glover Matte that had been treated at Encycle. Ms. Zazzali explained that the treatment of Glover Matte at Encycle prior to recycling would be considered treatment and might jeopardize the material's exempt status. Secondary materials that require treatment prior to recycling are not exempt from the definition of solid waste.

The Martin Metals MAPs are for crushed ceramic circuitry and ceramic components. The addenda states that the materials are a

scrap metal when recycled. The addenda is unsigned. The summary memo from R. Marcus states that the materials are a characteristic by-product. This discrepancy should be resolved and the addenda must be signed.

The Commodity Resources and Environment MAP was for silver and gold seeps from photographic scrap, photo chemicals and scrap film. The original MAP states that the material contains a listed waste. An addenda to the MAP states that the material does not contain a listed waste. This type of material frequently is derived from listed wastes so the revision should be explained. The addenda also states that the material is a sludge. It appears from reading the description of how the materials are generated, the material might be a by-product rather than a sludge. However, since the material does not exhibit a characteristic of a hazardous waste, in this particular instance, it is only important to resolve whether or not the material contains or is derived from a listed hazardous waste.

The ECS Refining MAP was for dried photochemical sludge. Ms. Zazzali examined this MAP because it stated the material contains diatomaceous earth. Diatomaceous earth is typically used as a filter and may be considered a spent material. In this instance the diatomaceous earth is used as a drying agent for the sludge and therefore would not be considered a spent material. Based on the information provided by Asarco, the material might be considered a by-product.

During this meeting Ms. Zazzali mentioned a recent Federal register notice which impacts the regulation of sweeps and fines. Ms. Zazzali informed Asarco that some sweeps and fines and router dusts may be hazardous waste because they are may be derived from listed solvents. Ms. Zazzali agreed to provide Mr. Nickel with a copy of the Federal Register notice.

Cadmium bearing baghouse dust generated at East Helena is no longer recycled. Asarco ceased recycling baghouse dust in the summer of 1997. Mr. Nickel stated that Asarco cannot find a cadmium recylcer to take the baghouse dust. Asarco recirculates the dust until the cadmium level is 16 to 17% and then ships the dust as a waste for disposal.

Mr. Potts asked Mr. Nickel how he keeps track of recycled on-site generated materials to prevent speculative accumulation. Mr. Nickel provided us with a copy of the inventory he maintains to prevent speculative accumulation. Mr. Nickel stated that all secondary materials, including on-site generated materials, are tracked on the list.

After the meeting, the inspection team proceeded to tour the facility. The inspection team visited the following areas: ore storage yard, acid plant, HDS plant, used oil storage area, direct smelt building, slag pile, thornock tank, million gallon tanks, zinc plant, package plant, machine shop, paint shop, wood

shop, laboratory, cooling towers, and acid storage tank farm.

At the million gallon tanks the inspection team observed the removal of sludge from the bottom of the north tank. The sludge was 6" to 1' thick. The sludge was removed using a vacuum truck. Mr. Nickel stated that the sludge was stored in bins by the blast furnace flue on the east side of the facility. The sludge is dried in the bins and then sent to the blast furnace.

The inspection team departed the facility at approximately 4:50 PM. They agreed to reconvene with Mr. Nickel for an exit meeting at 1:30 PM the following day.

EXIT MEETING:

Jon Nickel and John Shaw, Plant Manager, met with the inspection team at approximately 2 PM to discuss the inspection.

Mr. Potts commended Mr. Nickel and Mr. Shaw on improvements at the facility. Mr. Potts discussed some problems with the manifest procedures and explained how to resolve those problems. See the DEQ's inspection report for details.

Mr. Shaw mentioned that Asarco does not plan to accept router dust for recycling in the future. Due to problems handling router dust they decided to stop recycling it. Mr. Shaw stated that the router dust currently stored on site will be sold.

Ms. Zazzali reviewed the MAP discrepancies she had previously discussed with Mr. Nickel during the inspection. The discrepancies are described above. A more detailed cover memo explaining the changes in the MAPs should be written so the acceptance process is easier to understand. Mr. Shaw acknowledged the summary memo was too brief and could be improved.

The inspection team proceeded to review on-site materials management again. Mr. Nickel stated that sludges are removed from the tanks and placed in bins along the blast furnace flue. The bins are concrete on three sides and bermed with lime rock on the fourth side. Mr. Nickel stated that the sludges are high in metals and exhibit the characteristic of a hazardous waste. Mr. Nickel stated that the sludges are dried in the bins.

Mr. Potts and Ms. Zazzali explained that dewatering the sludges in the bins prior to recycling is considered treatment. Mr. Potts explained that Asarco could treat the sludges without a permit if they treated it in tanks or containers and finished treatment within 90 days. Mr. Potts and Ms. Zazzali explained that the intent was to prevent a release to the environment during treatment. We discussed some options Asarco would consider such as capturing the water and treating it at the HDS plant or using the HDS plant thickener for treatment of the sludges.

Although Mr. Nickel had shown the bins to the inspection team the previous day, the team had noted that the bins were not in use. The team asked Mr. Nickel to show them the bins again.

Prior to revisiting the bin area, Mr. Potts raised the State's concerns about the sulfuric acid produced by Asarco. Mr. Pott's indicated that there was growing concern regarding inert ingredients in pesticides and fertilizers. The acid produced at Asarco exhibits a characteristic for mercury, lead and cadmium. Since the acid is registered as a pesticide by EPA, Mr. Pott's indicated DEQ would be referring to the Montana Department of Agriculture and EPA for an interpretation regarding the hazardous inert ingredients.

The team then proceeded to the storage bins. There were 3 bins approximately 20 feet by 20 feet on the west wall of the blast furnace flue. The sludge was approximately 2 feet thick in each of the bins. The outer edge of the bins was an approximately 3 foot high berm of lime rock. There were 2 bins on the south wall of the used oil storage building, just across the road from the bins along the flue. These 2 bins were approximately 20 feet by 20 feet with n approximately 4 foot high berm of lime rock. The sludge was approximately 3 feet thick. On the south edge of the 3 bins along the flue there was a pile of semi dry sludge.

Water from the sludge and fine sediments were observed seeping from the toe of the lime rock berms and draining along the roadway.

The State obtained samples of the sludge. Mr. Potts collected composite samples. A sample of the material leaking from the toe of the berms was not obtained. Photographs attached. See the DEQ's report.

SIGNIFICANT POSSIBLE VIOLATIONS IDENTIFIED

Treatment of sludges generated on-site without a permit.

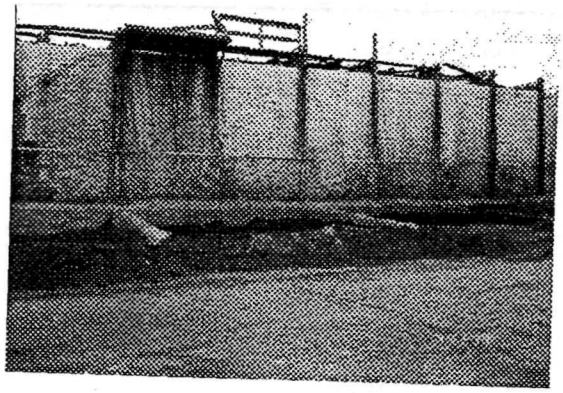
Disposal of sludges generated on-site without a permit.

December 3, 1998
Date of Inspection Report

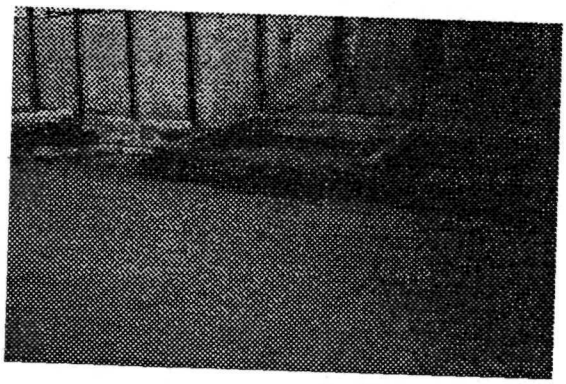
Susan A. Zazzali
Susan A. Zazzali
EPA Inspector

cc: Bill Potts, DEQ-PCD
Adel Johnson, DEQ-PCD
Charles Figur, 8ENF-L

1. Removal of sludges from 1 million gallon tank



2. Sludge storage bins (west side of blast furnace flue), Lime rock berm and seepage from the toe of the berm



3. Sludge storage bins (west side of blast furnace flue), Lime rock berm and seepage from the toe of the berm

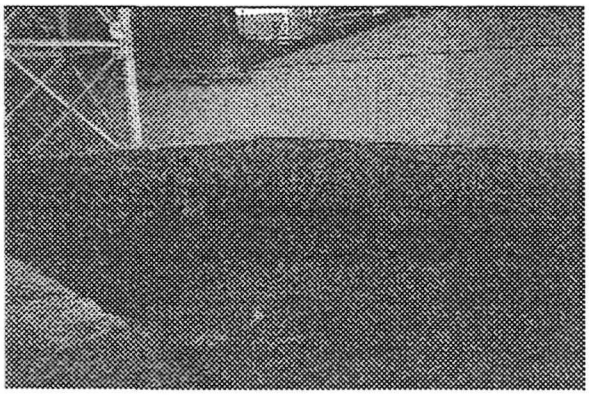
4.

5.

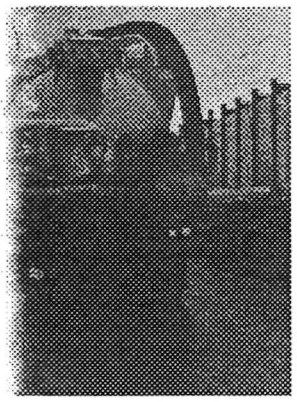
6.

7.

Photos #4-#7, sampling of sludges from 1 million gallon tank.



8. Storage bin on south side of used oil storage area



9. Vacuum truck
(End of film roll)